

## A B S T R A C T

~~OPTICAL TRANSMISSION SYSTEM USING COHERENT OPTICAL TIME  
DOMAIN REFLECTOMETRY~~

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10 The invention concerns a method of reducing  
interaction between the signal in one transmission  
direction (2) and backscattered noise originating from  
the other transmission direction (1) in an amplified and  
non-bi-directional fiber optic link including optical  
loopback (18, 19, 21) of the amplifiers (13, 14; 15, 16)  
to enable COTDR (coherent optical time domain  
reflectometry); it is characterized by widening the  
spectrum of the signal in at least one transmission  
15 direction, for example by wavelength modulation. The  
modulation is simply effected by modulating the injection  
carrier of a laser (3) used as an sender, for example.  
Modulation at a low frequency - in the order of 1 kHz -  
is appropriate. This is a simple way to reduce  
20 interaction, whilst enabling COTDR. The invention also  
concerns a link implementing the method.

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Translation of the title and the abstract as they were when originally filed by the  
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